

SYSTEM FOR RESONANT CIRCUIT TUNING

ABSTRACT

The present invention provides a system for producing a tunable resonant circuit (200), where the resonant circuit utilizes both integrated semiconductor devices and discrete components. The system provides a driver circuit (208) instantiated within a first integrated semiconductor device (210), an inductive load (204), and a resistive element (202) 5 intercoupled therebetween. One terminal of the inductive load is coupled to a first terminal of a reduction system (214). A second terminal of the reduction system is coupled to a node (216). A primary capacitive element (206) has a first terminal coupled to a node, and a secondary capacitive element (222) has a first terminal coupled to the node. A switchable 10 element (224) has a first terminal coupled to a second terminal of the secondary capacitive element, and a second terminal coupled to ground. The reduction system is adapted to reduce to operational voltage at the node to a target value.